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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/092,281	03/06/2002	Durham Russell Maples		7725

7590 03/15/2004

Durham Russell Maples
1507 Park Circle
Camden, SC 29020

EXAMINER

RODRIGUEZ, JOSEPH C

ART UNIT	PAPER NUMBER
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3653

DATE MAILED: 03/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/092,281	Applicant(s) <i>SW</i> MAPLES, DURHAM RUSSELL	
	Examiner Joseph C Rodriguez	Art Unit 3653	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 18-38 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 20,31,33 and 35-38 is/are allowed.
- 6) ☒ Claim(s) 18,19,22-25,27-30,32 and 34 is/are rejected.
- 7) ☒ Claim(s) 21 and 26 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 March 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

Final Rejection

Applicant's arguments filed 12/22/03 have been fully considered but they are not persuasive for reasons detailed below.

The 35 U.S.C. 112 rejections are maintained or modified as follows:

Claims 22, 24, 27, 29, 32 and 34 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 22, 27 and 32, the language "any mechanical separation means" renders the scope of the claims indefinite as it is unclear what means are encompassed by "any". Applicant is reminded to claim the invention with particularity.

The claims 24, 29 and 34 recite the limitation "the base solutions" (ln. 2-3). There is insufficient antecedent basis for this limitation in the claims.

The prior art rejections are maintained or modified as follows:

Claims 18, 19, 23 and 28 are rejected under 35 U.S.C. 102(b) as being anticipated by Davidson et al. ("Davidson")(US '522).

Regarding claims 18 and 19, Davidson teaches a method of separating comprising subjecting non-atomically bonded substances (coal particulates in alcohol suspension) to a chemical reaction (addition of reagent and catalyst; col. 5, ln. 27-col. 6, ln. 43), wherein the molecular structure in said substances is altered by the removal of sulfur and is recovered using mechanical means (membrane cell) (col. 6, ln. 43).

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Regarding claims 23 and 28, it is implicit that the removal of the sulfur atoms alters the specific gravity of the coal particulates in the suspension.

Claims 25 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Davidson in view of what is well known in the art.

Davidson as set forth above teaches all that is claimed except for expressly teaching the step of magnetic separation. This feature, however, is well-known in the sorting arts. Davidson even teaches that sulfur removal can be accomplished with magnetic separation means (col. 2, ln. 4-19) and Examiner takes Official Notice that magnetic separation means are a well known equivalent to achieve sulfur recovery. Therefore, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the invention of Davidson as taught above.

Allowable Subject Matter

Per Applicant's request, Examiner has identified the following as allowable subject matter--

Claims 20, 31, 33 and 35-38 are allowed.

Claims 32 and 34 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action.

Claims 21 and 26 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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Examiner has maintained the prior art rejections, statutory rejections and drawing objections as previously stated and as modified above. Applicant's amendment necessitated any new grounds of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a). The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Conclusion

Any references not explicitly discussed above but made of record are considered relevant to the prosecution of the instant application.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph C Rodriguez whose telephone number is **703-308-8342**. The examiner can normally be reached on M-F during normal business hours (9 am – 6 pm, EST).

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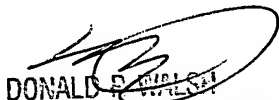
The **Official** fax phone number for the organization where this application or proceeding is assigned is **703-872-9326** (After-Final **703-972-9327**).

The **UnOfficial** fax phone number for the organization where this application or proceeding is assigned is **703-306-2571** or **703-308-6552**.

The examiner's **UNOFFICIAL Personal fax number** is **703-746-3678**.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the **Receptionist** whose telephone number is **703-308-1113**.

March 10, 2004


DONALD P. [unclear]
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600